

10/575991

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54-000711US.ST25.txt
SEQUENCE LISTING

<110> The Scripps Research Institute
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Schultz, Peter G
Zhang, Zhiwen

<120> SITE-SPECIFIC INCORPORATION OF REDOX ACTIVE AMINO ACIDS INTO
PROTEINS

<130> 54-000711US

<140> Not Yet Known

<141> 2006-04-14

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<170> PatentIn version 3.2

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<212> PRT

<213> Artificial

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<223> synthetase selected for incorporation of DHP

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Ile Lys Lys Met Ile Asp Leu Gln Asn Ala Gly Phe Asp Ile Ile Ile
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Leu Leu Ser Asp Leu Asn Ala Tyr Leu Asn Gln Lys Gly Glu Leu Asp
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Asp Tyr Thr Leu Asn Val Tyr Arg Leu Ala Leu Lys Thr Thr Leu Lys
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Lys Val Ala Glu Val Ile Tyr Pro Ile Met Gln Val Asn Asp Ile His
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Tyr Leu Gly Val Asp Val Gln Val Gly Gly Met Glu Gln Arg Lys Ile
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His Met Leu Ala Arg Glu Leu Leu Pro Lys Lys Val Val Cys Ile His
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Asn Pro Val Leu Thr Gly Leu Asp Gly Glu Gly Lys Met Ser Ser Ser
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Lys Gly Asn Phe Ile Ala Val Asp Asp Ser Pro Glu Glu Ile Arg Ala
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Lys Ile Lys Lys Ala Tyr Cys Pro Ala Gly Val Val Glu Gly Asn Pro
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Ile Met Glu Ile Ala Lys Tyr Phe Leu Glu Tyr Pro Leu Thr Ile Lys
 245 250 255

Arg Pro Glu Lys Phe Gly Gly Asp Leu Thr Val Asn Ser Tyr Glu Glu
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Leu Glu Ser Leu Phe Lys Asn Lys Glu Leu His Pro Met Asp Leu Lys
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Ile Gly Phe Glu Pro Ser Gly Lys Ile His Leu Gly His Tyr Leu Gln
 35 40 45

Ile Lys Lys Met Ile Asp Leu Gln Asn Ala Gly Phe Asp Ile Ile Ile
 50 55 60

Leu Leu Ala Asp Leu His Ala Tyr Leu Asn Gln Lys Gly Glu Leu Asp
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Glu Ile Arg Lys Ile Gly Asp Tyr Asn Lys Lys Val Phe Glu Ala Met
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Gly Leu Lys Ala Lys Tyr Val Tyr Gly Ser Glu Phe Gln Leu Asp Lys
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Asp Tyr Thr Leu Asn Val Tyr Arg Leu Ala Leu Lys Thr Thr Leu Lys
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115

120

125

Arg Ala Arg Arg Ser Met Glu Leu Ile Ala Arg Glu Asp Glu Asn Pro
 130 135 140

Lys Val Ala Glu Val Ile Tyr Pro Ile Met Gln Val Asn Asp Ile His
 145 150 155 160

Tyr Leu Gly Val Asp Val Ala Val Gly Gly Met Glu Gln Arg Lys Ile
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His Met Leu Ala Arg Glu Leu Leu Pro Lys Lys Val Val Cys Ile His
 180 185 190

Asn Pro Val Leu Thr Gly Leu Asp Gly Glu Gly Lys Met Ser Ser Ser
 195 200 205

Lys Gly Asn Phe Ile Ala Val Asp Asp Ser Pro Glu Glu Ile Arg Ala
 210 215 220

Lys Ile Lys Lys Ala Tyr Cys Pro Ala Gly Val Val Glu Gly Asn Pro
 225 230 235 240

Ile Met Glu Ile Ala Lys Tyr Phe Leu Glu Tyr Pro Leu Thr Ile Lys
 245 250 255

Arg Pro Glu Lys Phe Gly Gly Asp Leu Thr Val Asn Ser Tyr Glu Glu
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Leu Glu Ser Leu Phe Lys Asn Lys Glu Leu His Pro Met Asp Leu Lys
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Arg Leu
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